

OIPE

RAW SEQUENCE LISTING DATE: 05/04/2000
 PATENT APPLICATION: US/09/551,380 TIME: 16:32:01

Input Set : A:\1990321.app
 Output Set: N:\CRF3\05042000\I551380.raw

**Does Not Comply
 Corrected Diskette Needed**

```

3 <110> APPLICANT: CHANG, Donald C
4   LUO, Qian
6 <120> TITLE OF INVENTION: Modified Fluorescent Proteins
8 <130> FILE REFERENCE: M99/0321/US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/551,380
C--> 11 <141> CURRENT FILING DATE: 2000-04-18
13 <160> NUMBER OF SEQ ID NOS: 32
15 <170> SOFTWARE: PatentIn Ver. 2.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 39
19 <212> TYPE: DNA
20 <213> ORGANISM: Artificial Sequence
22 <220> FEATURE:
23 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
25 <220> FEATURE:
26 <221> NAME/KEY: CDS
27 <222> LOCATION: (3)..(38)
29 <400> SEQUENCE: 1
30 ct cca att ggc gat gaa gtc gac ggc cct gtc ctt tta c           39
31   Pro Ile Gly Asp Glu Val Asp Gly Pro Val Leu Leu
32     1             5             10
35 <210> SEQ ID NO: 2
36 <211> LENGTH: 12
37 <212> TYPE: PRT
38 <213> ORGANISM: Artificial Sequence
39 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
W--> 41 <220> FEATURE:
41 <400> SEQUENCE: 2
42 Pro Ile Gly Asp Glu Val Asp Gly Pro Val Leu Leu
43   1             5             10
47 <210> SEQ ID NO: 3
48 <211> LENGTH: 39
49 <212> TYPE: DNA
50 <213> ORGANISM: Artificial Sequence
52 <220> FEATURE:
53 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
55 <400> SEQUENCE: 3
56 gtaaaaggac agggccgctcg acttcacgc caattggag           39
59 <210> SEQ ID NO: 4
60 <211> LENGTH: 4
61 <212> TYPE: PRT
62 <213> ORGANISM: Homo sapiens
64 <400> SEQUENCE: 4
65 Asp Glu Val Asp
66   1
69 <210> SEQ ID NO: 5
70 <211> LENGTH: 720

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/551,380
 DATE: 05/04/2000
 TIME: 16:32:01

Input Set : A:\1990321.app
 Output Set: N:\CRF3\05042000\I551380.raw

```

71 <212> TYPE: DNA
72 <213> ORGANISM: Artificial Sequence
74 <220> FEATURE:
75 <221> NAME/KEY: CDS
76 <222> LOCATION: (1)..(714)
78 <220> FEATURE:
79 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
80 - cleavage site
82 <400> SEQUENCE: 5
83 atg agt aaa gga gaa gaa ctt ttc act gga gtt gtc cca att ctt gtt 48
84 Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
85 1 5 10 15
87 gaa tta gat ggt gat gtt aat ggg cac aaa ttt tct gtc agt gga gag 96
88 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
89 20 25 30
91 ggt gaa ggt gat gca aca tac gga aaa ctt acc ctt aaa ttt att tgc 144
92 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
93 35 40 45
95 act act gga aaa cta cct gtt cca tgg cca aca ctt gtc act act ttc 192
96 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
97 50 55 60
99 act tat ggt gtt caa tgc ttt tca aga tac cca gat cat atg aaa cag 240
100 Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
101 65 70 75 80
103 cat gac ttt ttc aag agt gcc atg ccc gaa ggt tat gta cag gaa aga 288
104 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
105 85 90 95
107 act ata ttt ttc aaa gat gac ggg aac tac aag aca cgt gct gaa gtc 336
108 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
109 100 105 110
111 aag ttt gaa ggt gat acc ctt gtt aat aga atc gag tta aaa ggt att 384
112 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
113 115 120 125
115 gat ttt aaa gaa gat gga aac att ctt gga cac aaa ttg gaa tac aac 432
116 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
117 130 135 140
119 tat aac tca cac aat gta tac atc atg gca gac aaa caa aag aat gga 480
120 Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
121 145 150 155 160
123 atc aaa gtt aac ttc aaa att aga cac aac att gaa gat gga agc gtt 528
124 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
125 165 170 175
127 caa cta gca gac cat tat caa caa aat act cca att ggc gat ggc cct 576
128 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
129 180 185 190
131 gtc ctt tta cca gac aac cat tac ctg tcc aca caa tct gcc ctt tcg 624
132 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
133 195 200 205
135 aaa gat ccc aac gaa aag aga gac cac atg gtc ctt ctt gag ttt gta 672

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/551,380
 DATE: 05/04/2000
 TIME: 16:32:01

Input Set : A:\1990321.app
 Output Set: N:\CRF3\05042000\I551380.raw

136 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
 137 210 215 220
 139 aca gct gct ggg att aca cat ggc atg gat gaa cta tac aaa taataa 720
 140 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
 141 225 230 235
 144 <210> SEQ ID NO: 6
 145 <211> LENGTH: 238
 146 <212> TYPE: PRT
 147 <213> ORGANISM: Artificial Sequence
 148 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
 W--> 151 <220> FEATURE:
 151 <400> SEQUENCE: 6
 152 Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
 153 1 5 10 15
 155 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
 156 20 25 30
 158 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
 159 35 40 45
 161 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
 162 50 55 60
 164 Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
 165 65 70 75 80
 167 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
 168 85 90 95
 170 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
 171 100 105 110
 173 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
 174 115 120 125
 176 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
 177 130 135 140
 179 Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
 180 145 150 155 160
 182 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
 183 165 170 175
 185 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
 186 180 185 190
 188 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
 189 195 200 205
 191 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
 192 210 215 220
 194 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
 195 225 230 235
 199 <210> SEQ ID NO: 7
 200 <211> LENGTH: 4
 201 <212> TYPE: PRT
 202 <213> ORGANISM: Homo sapiens
 204 <400> SEQUENCE: 7
 205 Tyr Val His Asp
 206 1

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/551,380 DATE: 05/04/2000
TIME: 16:32:01

Input Set : A:\1990321.app
Output Set: N:\CRF3\05042000\I551380.raw

209 <210> SEQ ID NO: 8
210 <211> LENGTH: 4
211 <212> TYPE: PRT
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
216 cleavage site
218 <400> SEQUENCE: 8
219 Asp Glu His Asp
220 1
223 <210> SEQ ID NO: 9
224 <211> LENGTH: 4
225 <212> TYPE: PRT
226 <213> ORGANISM: Artificial Sequence
228 <220> FEATURE:
229 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
230 cleavage site
232 <400> SEQUENCE: 9
233 Trp Glu His Asp
234 1
237 <210> SEQ ID NO: 10
238 <211> LENGTH: 4
239 <212> TYPE: PRT
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
244 cleavage site
246 <400> SEQUENCE: 10
247 Leu Glu His Asp
248 1
251 <210> SEQ ID NO: 11
252 <211> LENGTH: 4
253 <212> TYPE: PRT
254 <213> ORGANISM: Homo sapiens
256 <400> SEQUENCE: 11
257 Val Glu Ile Asp
258 1
261 <210> SEQ ID NO: 12
262 <211> LENGTH: 4
263 <212> TYPE: PRT
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
268 cleavage site
270 <400> SEQUENCE: 12
271 Leu Glu Thr Asp
272 1
275 <210> SEQ ID NO: 13
276 <211> LENGTH: 4

RAW SEQUENCE LISTING DATE: 05/04/2000
PATENT APPLICATION: US/09/551,380 TIME: 16:32:01

Input Set : A:\1990321.app
Output Set: N:\CRF3\05042000\I551380.raw

277 <212> TYPE: PRT
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
282 cleavage site
284 <400> SEQUENCE: 13
285 Leu Glu His Asp
286 1
289 <210> SEQ ID NO: 14
290 <211> LENGTH: 3
291 <212> TYPE: PRT
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
296 cleavage site
298 <400> SEQUENCE: 14
299 Glu Val Asp
300 1
303 <210> SEQ ID NO: 15
304 <211> LENGTH: 3
305 <212> TYPE: PRT
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
310 cleavage site
312 <400> SEQUENCE: 15
313 Asp Glu Val
314 1
317 <210> SEQ ID NO: 16
318 <211> LENGTH: 4
319 <212> TYPE: PRT
320 <213> ORGANISM: Artificial Sequence
322 <220> FEATURE:
323 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
324 cleavage site
326 <400> SEQUENCE: 16
327 Asp Glu Asp Asp
328 1
331 <210> SEQ ID NO: 17
332 <211> LENGTH: 5
333 <212> TYPE: PRT
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
338 cleavage site
340 <400> SEQUENCE: 17
341 Asp Glu Val Asp Gly
342 1 5
345 <210> SEQ ID NO: 18

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/551,380

DATE: 05/04/2000

TIME: 16:32:02

Input Set : A:\1990321.app

Output Set: N:\CRF3\05042000\I551380.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:41 M:258 W: Mandatory Feature missing, <220> FEATURE:

L:151 M:258 W: Mandatory Feature missing, <220> FEATURE: